CORPORATE ENVIRONMENTAL ADVISORS, INC.

February 14, 1997

FEB 18 10 53 AM '97

Bruce Linton
VT DEC
103 South Main Street
West Building
Waterbury, VT 05671-0404

RE: VT DEC SMS # 96-2060
Christy's Market
Route 100, West Dover, VT
CEA File # 3016-96-2

Dear Mr. Linton:

Enclosed please find the Initial Site Investigation Report for the Christy's Market site on Route 100 in West Dover, VT. If you have any questions regarding this document, you can reach me at our Vermont branch office phone number (802) 295-5222.

Sincerely,

CEA, Inc.

Paul S. Renouf
Branch Manager

PSR:ssl

Enc: Site Investigation Report

pc: Mr. Tom Wilburn
Christy's Market
27 Christy's Drive
Brockton, MA

127 HARTWELL STREET
WEST BOYLSTON, MA 01583
PHONE: 508-835-8822
FAX: 508-835-8812

REMEDIATION
L.S.P. SERVICES
SITE ASSESSMENTS
EMERGENCY RESPONSE

CORPORATE ENVIRONMENTAL ADVISORS, INC.

INITIAL SITE INVESTIGATION REPORT

Christy's Market
SMS # 96-2060
Route 100
West Dover, VT

Prepared for:
Christy's Market, Inc.
22 Christy's Drive
Brockton, MA 02401

Prepared by:
CORPORATE ENVIRONMENTAL ADVISORS, INC.
P.O. Box 1246
White River Junction, VT 05001
(802) 295-5222

February 11, 1997

CEA Ref. File #3016-96-2

127 HARTWELL STREET
WEST BOYLSTON, MA 01583
PHONE: 508-835-8822
FAX: 508-835-8812

REMEDIATION
L.S.P. SERVICES
SITE ASSESSMENTS
EMERGENCY RESPONSE

Executive Summary

Corporate Environmental Advisors, Inc. of White River Junction, Vermont, performed an environmental site investigation of the Christy's Market located on Route 100 in West Dover, Vermont. The purpose of the investigation was to define the degree and extent of soil and groundwater contamination at the site, and to identify sensitive receptors which might be impacted by such contamination.

On September 17, 1996 through September 19, 1996, CEA personnel observed the replacement and upgrading of fuel lines serving the five underground storage tanks (UST) on site. Single wall steel piping was replaced with double wall Enviro-flex piping. Soil samples were collected beneath the former piping and from the excavation sidewalls during soil excavation performed on the south side of the USTs. Soil samples were field screened with a Thermo Environmental Instruments Model 580B OVM photo-ionization detector (PID). The maximum concentration of Volatile Organic Compounds (VOC) detected during field screening was 341 ppm. Approximately 30 cubic yards were stockpiled on site.

Two soil borings were advanced at the site on October 29, 1996 and groundwater monitoring wells were installed in the borings (CEA-5 and CEA-6). Auger refusal was reached at 10 feet at CEA-5 and at 6.5 feet at CEA-6. Split-spoon soil samples were retrieved from the approximate level of groundwater and field screened with a PID. No VOCs were detected in the soil samples from the boring for monitoring well CEA-5 and a reading of 476 ppm was obtained from the soil sample from the boring for monitoring well CEA-6.

Laboratory analysis of groundwater samples from CEA-5 and CEA-6 along with the previously installed CEA-1, CEA-3 and MS-3 revealed the presence of BTEX and MTBE compounds in site groundwater. Depth to groundwater was measured to be between 3.63 and 4.50 below ground surface on October 30, 1996. Groundwater appears to flow in an easterly direction across the site.

Christy's Market is served by a private drinking water well and municipal sewer. There are numerous drinking water wells located within a half-mile radius of the site, including one that is located across Route 100 approximately 100 feet northeast of site. The site building does not have a basement. The North Branch of the Deerfield River is located approximately 125 feet northeast of the site.

Based on the data gathered to date, CEA recommends that: all existing monitoring wells be sampled on a quarterly basis; two addition downgradient monitoring wells be installed; a visual assessment of the North Branch of the Deerfield be conducted during sampling events; data be gathered on a drinking water well across Route 100; a bail test be conducted on three site monitoring wells; and the approximately 30 cubic yards of stockpiled soil be screened on a semi-annual basis.

CEA

Table of Contents

1. INTRODUCTION

This investigation was conducted by Corporate Environmental Advisors, Inc. of White River Junction, Vermont (CEA) to define the degree and extent of soil and groundwater contamination at Christy's Market on Route 100, West Dover, Vermont ("the site") and to identify sensitive receptors which may be impacted by such contamination.

2. SITE DESCRIPTION

2.1. The Site and Vicinity

Route 100 and Windy Hill Road. A Site locus based on the West Dover, Vermont USGS Topographical Quadrangle is presented in Attachment 1 of this report. The map shows the site to be at an elevation of approximately 1700 feet above mean sea level. The site is located at 42° 56' 37" N, 72° 51' 44"W.

The properties adjacent to the site consist primarily of commercial development with a vacation condominium development southwest of the site. Commercial development lies to the northwest, northeast and southeast of the site. See Attachment 4 for a complete list of abutting properties and a property owners mailing list. The North Branch of the Deerfield River is located approximately 125 feet northeast of the site. A Site Vicinity map, based on the West Dover Tax Map, is presented in Figure 2 of this report.

2.2. Site History

According to the West Dover Assessor's Office, the subject property has been used as a fuel dispensing station and market since 1985. Prior to that time the site was an undeveloped lot. In addition to Christy's Market, the on-site building is occupied by a Vermont State liquor store. The site is connected to the town sewage treatment plant. Water is supplied to the site by a private well located approximately 160 feet southwest of the southwest wall of the Market building.

2.3 Project Background

On September 17, 1996 through September 19, 1996, CEA personnel observed the replacement and upgrading of fuel lines serving the five underground storage tanks (UST) on site. Single wall steel piping was replaced with double wall Enviro-flex piping. See Figure 3 for site layout and UST data.

Soil samples were collected beneath the former piping approximately every 20 linear feet. In addition, soil samples were collected from the excavation sidewalls during soil excavation performed on the south side of the USTs. Soil samples collected for field screening analysis were collected in clean laboratory provided containers and capped with aluminum foil. The samples were shaken and allowed to sit for several minutes prior to measuring volatile organic compounds (VOC) using a Thermo Environmental Instruments Model 580B OVM photo-ionization detector (PID). The PID was calibrated to an isobutylene standard prior to collecting the soil samples. Soil sample depth and PID readings are presented below in Table 1. Soil sample locations are illustrated on Attachment 3.

Table 1

Soil Sample location	Depth in Feet	PID Reading (ppm)
1	2	41
2	2	341
3	2	15
4	2	0
5	3	0
6	2.5	0
7	3	234
8	4	227
9	3	59
10	3	0
11	6	246
12	6	286
13	6	291
14	6	280
15	6	308
16	6	258
17	3	8

During excavation of the soil performed to replace the UST piping on September 17 through September 19, 1996, no soil staining or hydrocarbon odors were noted in excavated soils from the northern portion of the USTs or from the pipelines adjacent to the southern pump island. Soil staining and hydrocarbon odors were noted in the soil adjacent to the fill ports for the diesel fuel, super unleaded, and mid-grade unleaded USTs. This soil was excavated down to the top of each UST and stockpiled on and under polyethylene sheeting, pending remediation or disposal. Soil staining and hydrocarbon odors were noted beneath the UST piping located at the south end of the mid-grade unleaded and super unleaded USTs. Approximately 30 cubic yards of soil were excavated from beneath the former piping and stockpiled on and under polyethylene sheeting. PID analysis of soil samples collected from the sidewalls of the final excavation indicated levels of VOCs between 258 ppm and 308 ppm. ~~2~~ SHOULD HAVE TRIED TO EXCAVATED TO ND.

DIESEL & PIPING

3. SUBSURFACE EXPLORATIONS AND ANALYSES

3.1. Monitoring Well Installation

On July 17, 1990 Armour Shield Drilling installed two monitoring wells (MS-1 and MS-3) on the subject property for real estate purposes. See Attachment 1 for boring logs/monitoring well reports.

On May 14, 1993 CEA personnel, as part of a limited site assessment, installed four monitoring wells (CEA-1, CEA-2, CEA-3 and CEA-4) on the subject property for real estate purposes. See Attachment 1 for boring logs/monitoring well reports. Each of the borings were advanced to a depth of at least five feet into the observed groundwater table to allow access to soil and groundwater for collection and analysis.

Two soil borings were advanced at the site on October 29, 1996 and groundwater monitoring wells were installed in the borings (CEA-5 and CEA-6). The borings were advanced with a hollow stem auger drill rig by Drilex of West Boylston, MA and overseen by CEA personnel. During the advancement of the soil boring for monitoring well CEA-5, auger refusal was reached at approximately 10 feet below ground surface (bgs). During the advancement of the soil boring for monitoring well CEA-6, auger refusal was reached at approximately 6.5 feet bgs. Soil boring/monitoring well construction logs are presented in Attachment 1 of this report. Monitoring well locations are shown in the Groundwater Gradient with Analytical Data map in Figure 3.

3.2. Field Screening of Soil Samples

On July 17, 1990, field screening of soil samples with a PID during the installation of monitoring wells MS-1 and MS-2 revealed a maximum reading of 4.2 ppm at a depth of 6-7 feet in MS-1 and a maximum reading of 40.2 at a depth of 5 feet in MS-3.

On May 14, 1993, field screening of soil samples with a PID during the installation of monitoring wells CEA-1, CEA-2, CEA-3 and CEA-4 revealed a maximum reading of 6.0 ppm at 5-7 feet in CEA-1 and less than 1 ppm in CEA-2, CEA-3 and CEA-4.

During drilling on October 29, 1996, split-spoon soil samples were obtained from each of the boreholes and field screened for VOCs with a PID (Thermo Environmental Instruments model 580B OVM). Soil samples were retrieved from the approximate level of groundwater (approximately 5 feet bgs) to evaluate the extent of groundwater impact associated with the release. No VOCs were detected in the soil samples from the boring for monitoring well CEA-5. A reading of 476 ppm was obtained from the soil sample from the boring for monitoring well CEA-6.

3.3. Laboratory Analysis of Groundwater Samples

On October 30 ,1996, groundwater samples were collected from monitoring wells CEA-1, CEA-3, CEA-5, CEA-6 and MS-3. Free phase product was observed in monitoring well CEA-2 and therefore no sample was collected. Groundwater samples were submitted for laboratory analysis for VOCs by EPA Method 8020 plus MTBE and Total Petroleum Hydrocarbons (TPH) by EPA Method 8100M. Samples were obtained with standard plastic disposable bailers after the removal of three well volumes of water from each well. All samples were refrigerated and sent to Spectrum Analytical, Inc. in Agawam, Massachusetts for analysis.

Concentrations of contaminants detected are presented in Table 2 along with the corresponding VT DEC Groundwater Quality Enforcement Standards. The standard cited for MTBE is the Vermont Health Advisory Level (VHAL) because there is no Enforcement Standard for MTBE.

Contaminants tested for but not listed in Table 2 were not detected in the samples collected on October 30, 1996. In addition, results of the laboratory analysis from sampling events conducted in 1990 and 1993 have been included in the following table. A complete laboratory report for the October 30, 1996 sampling event is presented in Attachment 2.

Table 2

Date	Compound	Standard	CEA-1	CEA-2	CEA-3	CEA-4	CEA-5	CEA-6	MS-1	MS-2	MS-3
10/30/96	Benzene	5.0	43	FP	ND	NS	1.5	1,300	NS	NS	21
	Toluene	2420	7.9	FP	ND	NS	ND	2,400	NS	NS	4.2
	Ethylbenzene	680	33	FP	ND	NS	ND	230	NS	NS	18
	Xylenes	400	9.4	FP	ND	NS	ND	3,400	NS	NS	4.4
	MTBE	40	600	FP	ND	NS	21	3,600	NS	NS	370
	TPH	none	1	FP	7.3	NS	0.3	20	NS	NS	0.7
5/20/93	Benzene	5.0	12	ND	ND	ND			ND	ND	8
	Toluene	2420	ND	ND	ND	ND			ND	ND	ND
	Ethylbenzene	680	141	ND	ND	ND			ND	ND	158
	Xylenes	400	209	ND	ND	ND			ND	ND	209
	MTBE	40	118	ND	ND	ND			ND	ND	90
	TPH	none	ND	ND	ND	ND			ND	ND	ND
7/18/90	Benzene	5.0							<1	<1	40
	Toluene	2420							<1	<1	142
	Ethylbenzene	680							<1	2	<50
	Xylenes	400							<1	14	1,137
	MTBE	40							<1	<1	<50
	TPH	none							NS	NS	NS

VOC results in ug/L and TPH results in mg/L — FP = Free Phase Product

ND = Not Detected above detection limit of laboratory method. — NS = Not sampled

Site drinking water well was sampled on May 20, 1993 via EPA Method 502.2 and TPH 418.1: VOC and TPH = ND

4. SITE HYDROGEOLOGY

4.1. Surficial Geology

Soils encountered during drilling consisted primarily of fine to medium grained sand with some gravel. More detailed soil information is noted on the soil boring/monitoring well construction logs in Attachment 1 of this report. During the fuel line replacement and excavation soils were noted to consist of sand with some gravel and some minor layers of dense clay.

4.2. Groundwater Levels and Flow Direction

Depth to groundwater was measured at each well using an electronic interface probe accurate to 0.01 feet. Groundwater elevations are presented in Table 3. On October 30, 1996, groundwater elevations ranged from 91.10 feet in CEA-1 to 93.05 feet in CEA-3 , representing 1.95 feet in change in groundwater elevation across the site. Groundwater flow direction was determined to be generally to the east. A groundwater gradient map constructed from the October 30, 1996 data is presented in Figure 3. During excavation at the site in September of 1996 groundwater was observed at an approximate depth of six feet below ground surface.

Table 3

Date		CEA-1	CEA-2	CEA-3	CEA-5	CEA-6	MS-3
10/30/96	Roadbox elevation	94.73	96.12	96.72	NS	NS	95.22
	Depth to GW	3.63	4.15	3.67	4.50	4.44	4.00
	GW elevation	91.10	91.97	93.05	NS	NS	91.22

The hydraulic gradient between CEA-3 and CEA-1 was calculated to be approximately 0.16 cm/cm. Based on an hydraulic conductivity value of 10^{-2}

cm/sec and an effective porosity estimate of 35% for sand, groundwater velocity was determined using the following variation of Darcy's Equation.

GW_{vel} = Hydraulic Gradient x Hydraulic Conductivity/Effective Porosity

GW_{vel} = 0.16 cm/cm x 0.01 cm/sec/0.35

GW_{vel} = 4.57×10^{-3} cm/sec

GW_{vel} = 394.8 cm/day

5. INITIAL RISK EVALUATION

5.1. Potential Sources

Based on observations made during the fuel line replacement in September of 1996 and monitoring well installation in October of 1996, evidence suggests that petroleum contamination in site groundwater may be due to a fitting leak on the fuel lines near the southern end of the mid-grade unleaded and super unleaded USTs.

5.2. Potential Receptors

The nearest human receptors would be occupants of the site and the adjacent properties. Based on interviews with property occupants in the site building and in the commercial building northeast of the site, both structures appear to have poured concrete slab foundations without basements. A slab foundation reduces the likelihood of VOCs migrating from the site's soil into a structure.

The site and vicinity are served by private drinking water wells and a municipal sewer system. According to the Basic Well Data Sheets for the town of Dover, VT provided by the Water Supply Division of the Vermont Department of Environmental Conservation there are numerous private drinking water wells within a half-mile radius of the site. The site drinking water well is located approximately 160 feet southwest of the southwest wall of the site building.

CEA personnel observed a drinking water well located beneath a commercial building approximately 100 feet northeast of the site, situated between Route 100 and the North Branch of the Deerfield River. CEA was unable to determine well construction data, such as the depth to bedrock, the depth of the well and the length

construction data, such as the depth to bedrock, the depth of the well and the length of the well casing. Based on groundwater elevations gathered on October 30, 1996, this commercial building appears to be downgradient of the site.

The nearest environmental receptor, in addition to site soil and groundwater, appears to be the North Branch of the Deerfield River, approximately 125 feet northeast of the site. An assessment of the impact to the river from the release was not possible due to snow and ice cover.

DOWNGRADIENT

5.3. Contaminant Distribution

Contaminant levels, based on laboratory analysis of groundwater samples from the October 30, 1996 sampling event, are presented in the Groundwater Gradient with Analytical Data Map presented in Attachment 3.

- Approximately four inches of free phase product were observed in monitoring well CEA-2 at the time of the sampling event, however, bailing reduced all product. It is believed the product was from a minor surface spill.

NAPL ?

- Benzene concentrations exceeding the VT DEC Groundwater Quality Enforcement Standards were found in groundwater from monitoring wells CEA-1, CEA-6 and MS-3.
- Xylene concentrations exceeding the VT DEC Groundwater Quality Enforcement Standards were found in groundwater from monitoring wells CEA-6.
- MTBE concentrations exceeding the Vermont Health Advisory Level were found in groundwater from monitoring wells CEA-1, CEA-6 and MS-3.

5.4. Contaminant Fate and Transport

Groundwater at the Christy's Market occurred between 3.63 and 4.50 below ground surface during the October 1996 sampling event. The hydraulic gradient between CEA-3 and CEA-1 was calculated to be approximately 0.16 cm/cm. In general, site soils consist of fine to medium grain sand with some gravel. Groundwater velocity at the site is approximately 394 cm/day to the east. Given these observations and assuming a homogeneous subsurface, it would appear that petroleum-related groundwater contamination at the site could migrate from the release area across the site to northeast corner in less than two weeks.

?

6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations presented in this report are based solely on information obtained during the course of this investigation. Changes in site conditions, or information not available for review at the time of this investigation, may necessitate an update of these conclusions and recommendations.

6.1. Conclusions

- A petroleum release is evident at this site. Gasoline-related contaminants were detected in groundwater samples collected from site monitoring wells.
- Evidence suggests that the release may have originated from fuel lines near the southeastern ends of the USTs.
- Approximately four inches of free phase product were observed in monitoring well CEA-2, however, this was bailed, is now recurring and believed to have been from a minor surface spill.
- Field screening of soil samples during drilling revealed elevated VOC levels at depths of approximately five feet in boring CEA-6 and near the southeast side the USTs.
- Concentrations of Benzene and Xylenes detected in site groundwater exceed VT DEC Groundwater Enforcement Standards.
- Site soils consist primarily of sand with some gravel. Some dense clay layers were also noted during excavation. Groundwater occurred between approximately 3.63 and 4.50 below ground surface during the October 1996 sampling event and at approximately six feet below ground surface during excavation at the site in September of 1996. The hydraulic gradient between CEA-3 and CEA-1 was calculated to be approximately 0.16 cm/cm in an easterly direction.
- The site and vicinity are served by private drinking water wells and municipal sewer systems. The site drinking water well is located approximately 160 feet southwest of the southwest wall of the site building. Numerous private drinking water wells are located within a half-mile radius of the site. A drinking water well is located approximately 100 feet northeast of the site. The nearest human receptors would be occupants of the site. The nearest environmental receptor appears to be the North Branch of the Deerfield River, approximately 125 feet northeast of the site.

6.2. Recommendations

CEA, Inc. recommends that the VOC levels in groundwater from the seven site monitoring wells be monitored on a quarterly basis until compounds tested for are beneath applicable Groundwater Enforcement Standards for two consecutive sampling events. Monitoring of groundwater will include gauging of groundwater levels.

Two monitoring wells should be installed along the northeast side of Route 100 in the parking area between the road and the commercial building adjacent to the site. One monitoring well (CEA-7) will be across Route 100 from CEA-6 and the other monitoring well (CEA-8) will be approximately 125 feet southeast of CEA-7. The two monitoring wells will aid in assessing the potential for off-site migration of contaminants toward a drinking water well and the North Branch of the Deerfield River.

Quarterly groundwater monitoring will also include a visual inspection of the North Branch of the Deerfield River for impacts to the river from the release.

If available, well drilling data on the drinking water well across Route 100 will be reviewed. This data will provide information on the site subsurface and the risk posed to receptors by the release.

The approximately 30 cubic yards of contaminated soils stockpiled on site should be screened with a PID on a semiannual basis. Results of the soil screening will be incorporated into the appropriate quarterly groundwater monitoring reports. After the first soil screening event CEA will make recommendations as to whether continued monitoring or disposal is the most efficient resolution to the soil pile issue.

A bailing test will be conducted in three site monitoring wells to gather information on site hydraulic conductivity. This data will provide additional information on the potential for migration of contaminants to off-site locations.

CERTIFICATION STATEMENT

It is hereby certified that the methodologies, techniques and findings of this technical report have been conducted in accordance with relevant environmental regulations, applicable professional standards and prudent engineering practices and that the information, attached documents and data are true, accurate and complete to the best of our knowledge.

Corporate Environmental Advisors, Inc.
P.O. Box 1246
White River Junction, VT 05001
(802) 295-5222

Paul S. Renouf
Project Manager

Glenn S. Goral
Director of Remediation

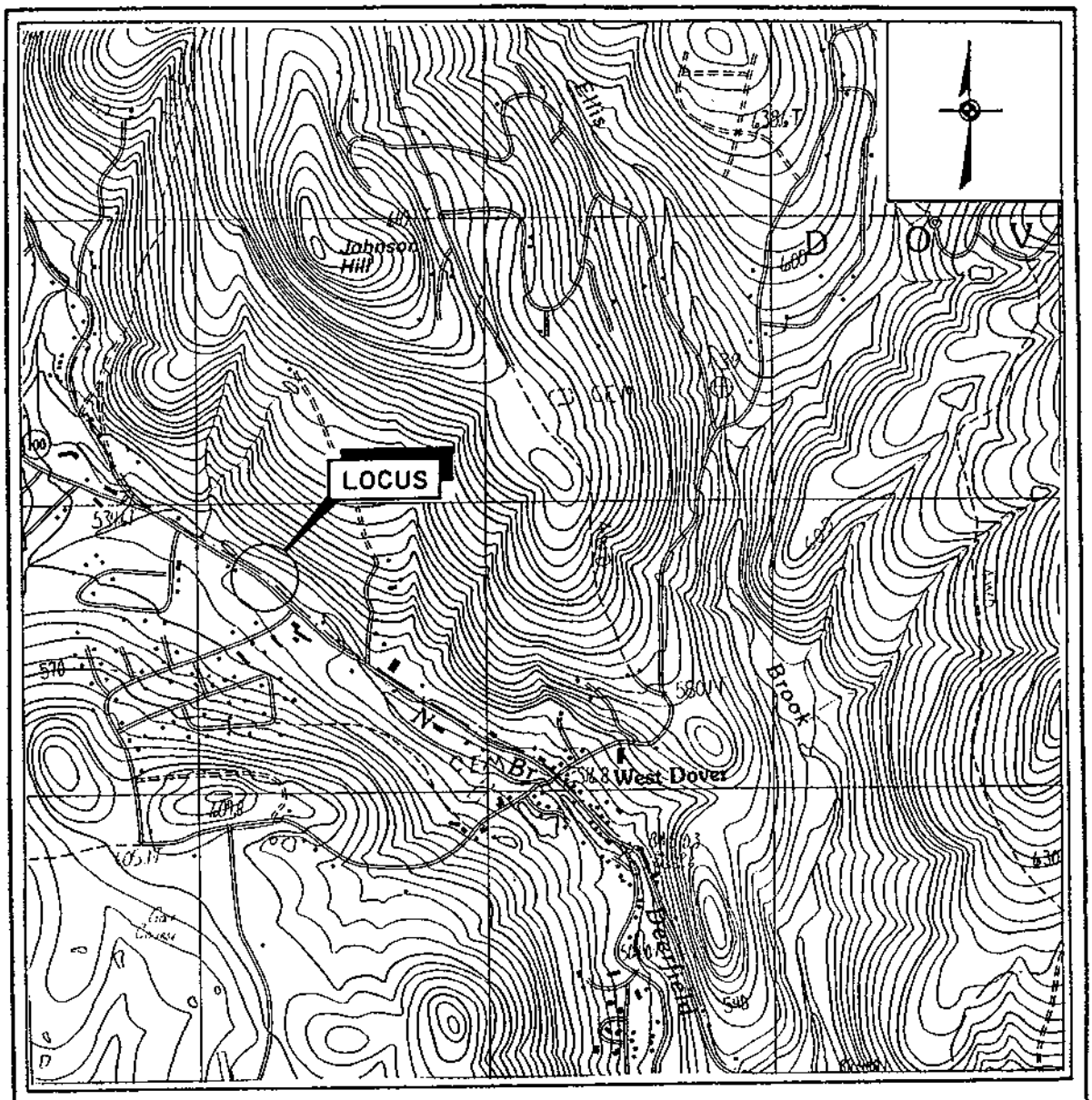
February 12, 1997

Site: Christy's Market
Route 100
West Dover, VT

CEA Ref. File # 3016-96-2

FIGURE 1

Site Locus



SCALE 1:24 000

1 MILE

1000 FEET

1 KILOMETER

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUAD. LOCATION

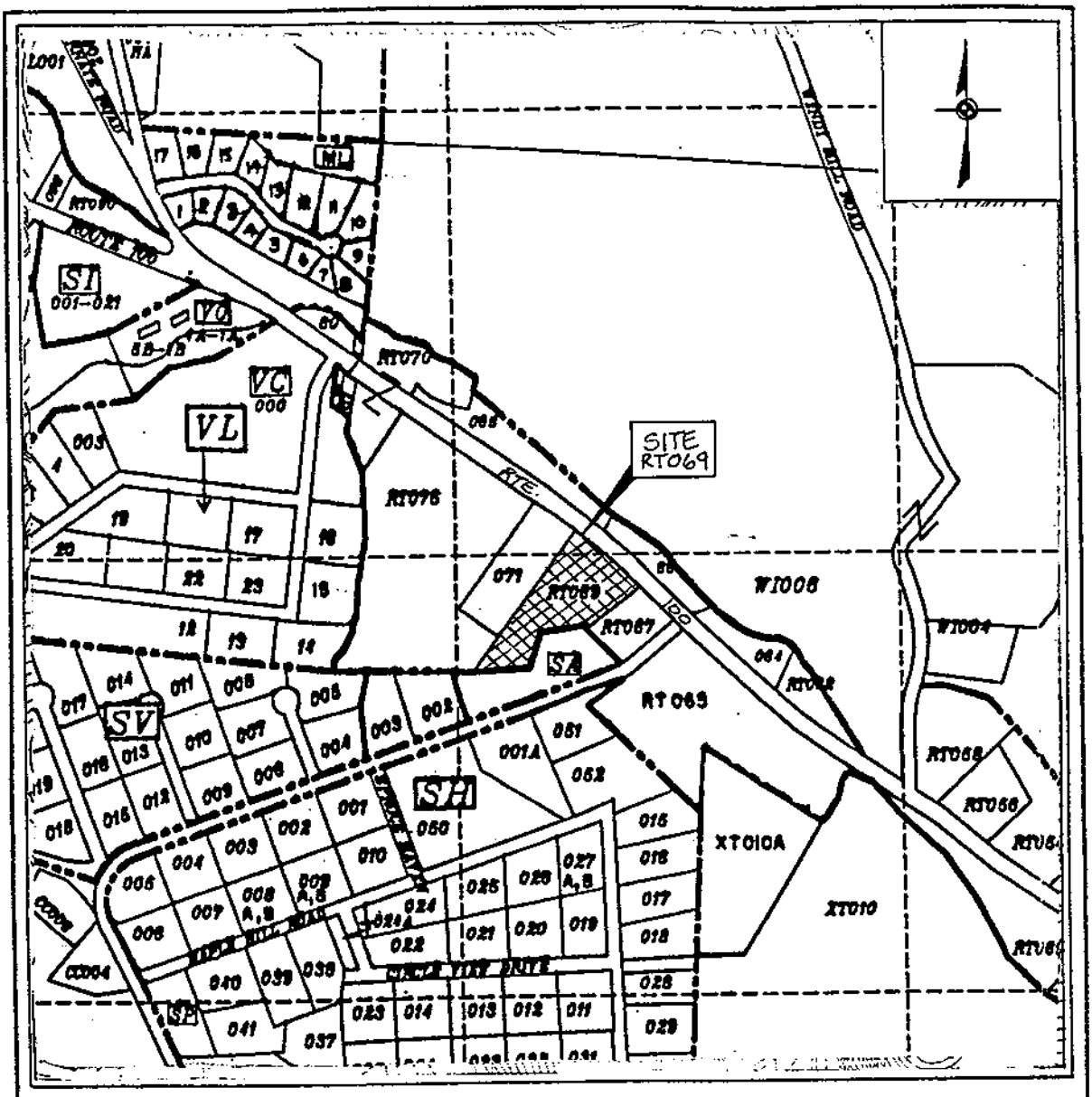
WEST DOVER, VERMONT
U.S.G.S. QUADRANGLE

FIGURE 1
SITE LOCUS

CEA

FIGURE 2

West Dover Tax Map



NOT TO SCALE

QUAD. LOCATION

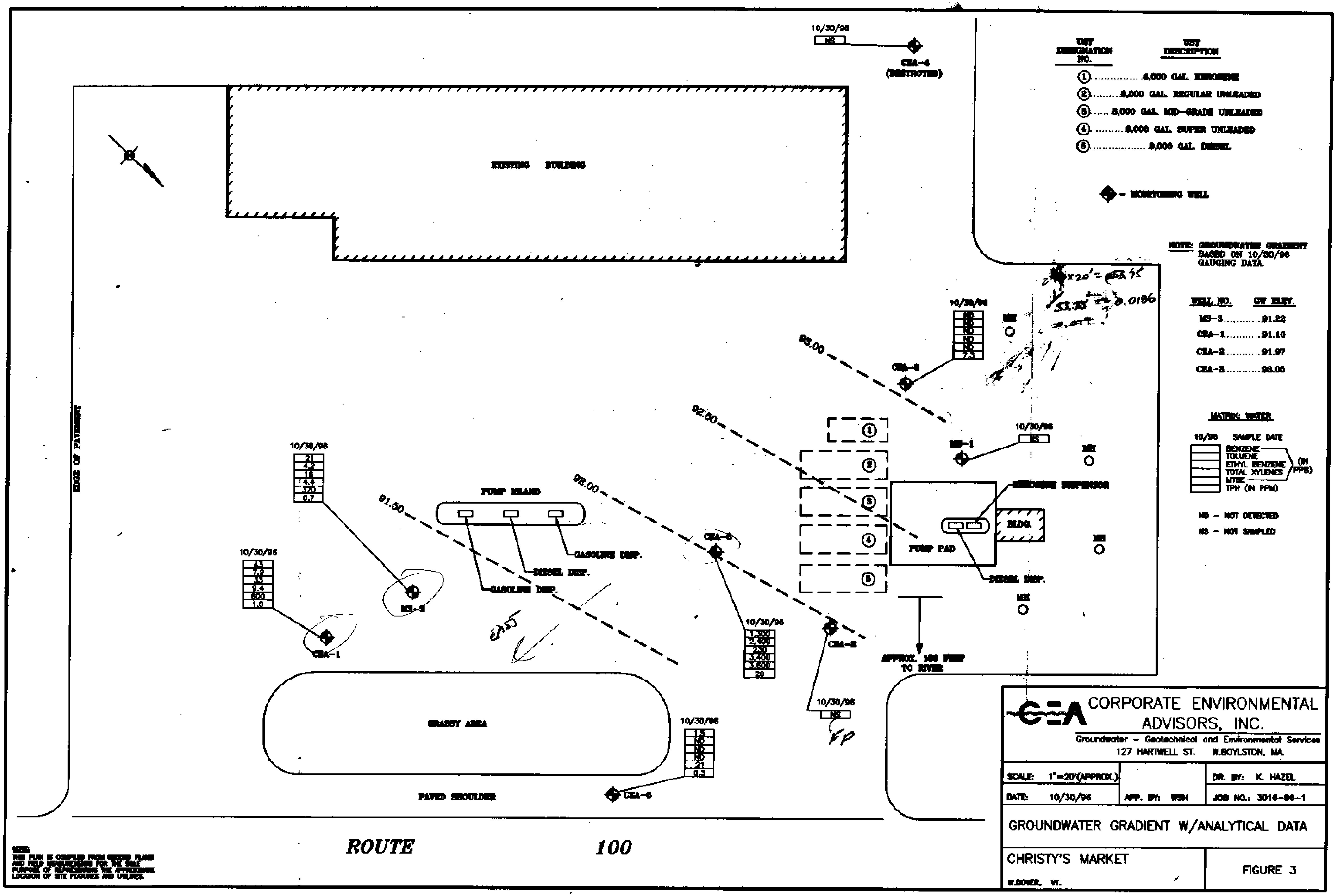
WEST DOVER, VERMONT
TAX MAP

FIGURE 2

CEA

FIGURE 3

Groundwater Gradient with Analytical Data Map


10/30/96
NS
CEA-4
EXISTING BUILDING
UST DESIGNATION NO.
UST DESCRIPTION
① .... 4,000 GAL. KEROSENE
② .... 8,000 GAL. REGULAR UNLEADED
③ ..... 8,000 GAL. MID-GRADE UNLEADED
④ .... 8,000 GAL. SUPER UNLEADED
⑤ .... 8,000 GAL. DIESEL
- MONITORING WELL
NOTE: GROUNDWATER GRADIENT BASED ON 10/30/96 GAUGING DATA.
WELL NO. GW ELEV.
MS-3 .... 91.22
CEA-1 .... 91.10
CEA-2 .... 91.97
CEA-3 .... 93.05
MATRIX: WATER
10/96 SAMPLE DATE
BENZENE
TOLUENE
ETHYL BENZENE
TOTAL XYLENES
MTBE
(IN PPB)
TPH (IN PPM)
ND - NOT DETECTED
NS - NOT SAMPLED
93.00
92.50
92.00
91.50
10/30/96
ND
ND
ND
ND
ND
7.3
MW
10/30/96
NS
MW
PUMP ISLAND
PUMP PAD
BLDG.
DIESEL DISP.
GASOLINE DISP.
10/30/96
21
4.2
15
4.4
370
0.7
MS-3
10/30/96
45
7.9
33
9.4
600
1.0
CEA-1
10/30/96
1,300
2,400
230
3,400
3,600
20
CEA-2
10/30/96
NS
10/30/96
1.5
ND
ND
ND
21
0.3
CEA-6
GRASSY AREA
PAVED SHOULDER
ROUTE 100
EDGE OF PAVEMENT
CORPORATE ENVIRONMENTAL ADVISORS, INC.
Groundwater - Geotechnical and Environmental Services
127 HARTWELL ST. W.BOYLSTON, MA.
SCALE: 1"=20'(APPROX.)
DR. BY: K. HAZEL
DATE: 10/30/96
JOB NO.: 3016-96-1
GROUNDWATER GRADIENT W/ANALYTICAL DATA
CHRISTY'S MARKET
W.DOVER, VT.
FIGURE 3

ATTACHMENT 1

Soil Boring Logs

CEA DRILLING SERVICES COMPANY, INC.

Complete Environmental, GeoTechnical & Subsurface Drilling Services

BORING LOG/MONITORING WELL CONSTRUCTION REPORT

Project #1704-93	Boring Well #CEA-4	Page 1 of 1
Location: Route 100	Owner/Client: Christy's	Date Drilled: 5/14/93
West Dover, VT.		Driller: P. Hatfield
Site Use: Gas Station/Convenience Store	Hole Diameter: 4.25"	Inspector: J. Gall
Drill Method: HSA	Total Depth: 10'	Project Mgr.: J. Gall
Sample Method: SS	CASING	SCREEN
Gravel Pack: #2 sand	TYPE: PVC	TYPE: PVC
Casing Seal: bentonite	DIAMETER: 2"	DIAMETER: 2"
Static Water Level: 5'	LENGTH: 2'	LENGTH: 8' SLOT: .010

DEPTH BELOW SURFACE	SAMPLE NUMBER	BLOWS PER 6" ON SAMPLER	PID (ppm)	WELL DESIGN	IDENTIFICATION OF SOILS/REMARKS	STRATA CHANGE
0-2'	S-1	Flight	0.0	C B S C R E E N	Brown fine sands with pebbles to cobbles, no odor, dry	
5'-7'	S-2	2-2-17-30	0.0		Gray medium sand grades to brown very fine sand with mica silt -also iron interbed, no odor, wet	5' GW
9-12	S-3	18-26-37-30	0.0		Gray very fine sand/silt with rock fragments (till)	
					Set Well	

141 Ballard Street ■ Worcester, Massachusetts 01607 ■ 508-755-5201 ■ Fax 508-755-9462

CEA DRILLING SERVICES COMPANY, INC.
Complete Environmental, GeoTechnical & Subsurface Drilling Services

BORING LOG/MONITORING WELL CONSTRUCTION REPORT

Project #1704-93	Boring Well #CEA-3	Page 1 of 1
Location: Route 100	Owner/Client: Christy's	Date Drilled: 5/14/93
West Dover, VT.		Driller: P. Hatfield
Site Use: Gas Station/Convenience Store	Hole Diameter: 4.25"	Inspector: J. Gall
Drill Method: HSA	Total Depth: 10'	Project Mgr.: J. Gall
Sample Method: SS	CASING	SCREEN
Gravel Pack: #2 sand	TYPE: PVC	TYPE: PVC
Casing Seal: bentonite	DIAMETER: 2"	DIAMETER: 2"
Static Water Level: 4'	LENGTH: 2'	LENGTH: 8' SLOT: .010

DEPTH BELOW SURFACE	SAMPLE NUMBER	BLOWS PER 6" ON SAMPLER	PID (ppm)	WELL DESIGN	IDENTIFICATION OF SOILS/REMARKS	STRATA CHANGE
0-2'	S-1	Flight	0.0		Dark brown/gray fine sand with pebbles/rocks, dry no odor	
5'-7'	S-2	8-15-7-15	0.0		Dark gray fine/medium sand, rock fragments, wet at top, no odor	4' GW
-12	S-3	12-50+	0.0		Spoon refusal -- gray very fine sand/silt with granite fragments, till, dry Set Well	

141 Ballard Street ■ Worcester, Massachusetts 01607 ■ 508-755-5201 ■ Fax 508-755-9462

CEA DRILLING SERVICES COMPANY, INC.
Complete Environmental, GeoTechnical & Subsurface Drilling Services

BORING LOG/MONITORING WELL CONSTRUCTION REPORT

Project #1704-93	Boring Well #CEA-2	Page 1 of 1
Location: Route 100	Owner/Client: Christy's	Date Drilled: 5/14/93
West Dover, VT.		Driller: P. Hatfield
Site Use: Gas Station/Convenience Store	Hole Diameter: 4.25"	Inspector: J. Gall
Drill Method: HSA	Total Depth: 10'	Project Mgr.: J. Gall
Sample Method: SS	CASING	SCREEN
Gravel Pack: #2 sand	TYPE: PVC	TYPE: PVC
Casing Seal: bentonite	DIAMETER: 2"	DIAMETER: 2"
Static Water Level: 5'	LENGTH: 2'	LENGTH: 8' SLOT: .010

DEPTH BELOW SURFACE	SAMPLE NUMBER	BLOWS PER 6" ON SAMPLER	PID (ppm)	WELL DESIGN	IDENTIFICATION OF SOILS/REMARKS	STRATA CHANGE
0-2'	S-1	Flight	0.0	C / B	Brown fine sands with pebbles to cobbles, no odor, dry	
5'-7'	S-2	2-5-3-16	0.0	SCREEN	Gray very fine sand/sild with rock fragments , loose till wet, no odor	5' GW
0-12	S-3	1-1-8-20	0.0		Gray coarse/medium sand, grades to gray till as above wet no odor Set Well	

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CEA DRILLING SERVICES COMPANY, INC.
Complete Environmental, GeoTechnical & Subsurface Drilling Services

BORING LOG/MONITORING WELL CONSTRUCTION REPORT

Project #1704-93	Boring Well #CEA-1	Page 1 of 1
Location: Route 100	Owner/Client: Christy's	Date Drilled: 5/14/93
West Dover, VT.		Driller: P. Hatfield
Site Use: Gas Station/Convenience Store	Hole Diameter: 4.25"	Inspector: J. Gall
Drill Method: HSA	Total Depth: 8.5'	Project Mgr.: J. Gall
Sample Method: SS	CASING	SCREEN
Gravel Pack: #2 sand	TYPE: PVC	TYPE: PVC
Casing Seal: bentonite	DIAMETER: 2"	DIAMETER: 2"
Static Water Level: 4'	LENGTH: 1'	LENGTH: 7.5' SLOT: .010

DEPTH BELOW SURFACE	SAMPLE NUMBER	BLOWS PER 6" ON SAMPLER	PID (ppm)	WELL DESIGN	IDENTIFICATION OF SOILS/REMARKS	STRATA CHANGE
				C B	Brown fine sand with cobbles and pebbles, dry, no odor	
0-2'	S-1	Flight	0.0			4'
5'-7'	S-2	7-8-15-30	6.0		Gray coarse sand with rock fragments "old" gas odor, wet	GW
8.5'	S-3	Grab	2.0		Gray very fine sand/silt, odor, wet On rock -- drum cuttings Auguer Refusal 8.5 Set Well	

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…FIT STREET • P.O. BOX D
…TFORD, CONNECTICUT 06497
…366-7988 • FAX #(203) 378-8736

PROJECT NAME: Grampy's Texaco
LOCATION: Route 100, West Dover, VT

MW3-OW ~~BWD3-OW~~

SHEET No. 1 of 1

…ER: Bino
ARCHITECT ENGINEER: Mark Burno
FILE NO.: 1
…SPECTOR: Armand
DATE START: 7-17-90
DATE FINISH: 7-17-90

	Casing	Sampler	Core Barrel
TYPE	H.S.A.	—	—
SIZE I.D.	4¼"	—	—
HAMMER WT.	—	—	
HAMMER FALL	—	—	

SURFACE ELEV.: NA
LINE & STATION: NA
OFFSET: NA

DEPTH	SAMPLE NO.	DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
								6"	Blacktop & ~~XXXXXXX~~ Gravel
5'	S1	Grab Sample						7'	Brown MC-F sand, some small-med. gravel, little coarse sand, trace of silt, many cobbles
10'								10'	Gray green MC-F sand and silt, little pea gravel, many cobbles
									10' B.O.B.
									Refusal on H.S.A.
									Possible boulders
									Installed Sched. 40 2" PVC & 7.5' of .020 screen.

NOTES 1) The stratification lines represent the approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made in the drill holes at times and under conditions stated on the boring logs. Fluctuations of the level of groundwater may occur due to other factors than those present at the time measurements were made.

SAMPLE PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff
		31 +	Hard

PROPORTIONS

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

REMARKS: Grab sample obtained from flyte.

COL. A: Water @ 5'±

OF CONNECTICUT, INC.
T STREET • P.O. BOX D
FORD, CONNECTICUT 06497
-7988 • FAX #(203) 378-8736

CLIENT: Ca...han Oil Co.
PROJECT NAME: Grampy's Texaco
LOCATION: Route 100, West Dover, VT

BORING NUMBER: MS1-OW (BWD1-OW struck through)
SHEET No. 1 of 1

FOREMAN: Bino
INSPECTOR: Armand
DATE START: 7-17-90
DATE FINISH: 7-17-90

ARCHITECT ENGINEER: Mark Burno

	Casing	Sampler	Core Barrel
TYPE	H.S.A.	—	—
SIZE I.D.	4¼"	—	—
HAMMER WT.	—	—	
HAMMER FALL	—	—	

FILE NO. 1
SURFACE ELEV. NA
LINE & STATION NA
OFFSET NA

DEPTH	SAMPLE NO.	DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
								6"	~~Blacktop & Gravel~~
									Brown MC-F sand, some large-med. gravel, little coarse sand, little small gravel, few cobbles (saturated)
5'	S1	Grab Sample						7'	
									Gray green MC-F sand and silt, little pea gravel (saturated)
11'								11'	11' B.O.B.
									Refusal on H.S.A.
									Possible large boulder
									Installed Sched. 40 2" PVC & 8' of .020 screen.

NOTES: 1) The stratification lines represent the approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made in the drill holes at times and under conditions stated on the boring logs. Fluctuations in the level of groundwater may occur due to other factors than those present at the time measurements were made.

SAMPLE PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff
		31 +	Hard

PROPORTIONS

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

REMARKS: Grab sample obtained from flyte.

COL. A Water @ 5'±

Haley & Aldrich, Inc.

GROUNDWATER OBSERVATION WELL REPORT

FILE NO. 90233-56

PROJECT GRAMPY'S MOUNT SNOW TEXACO

LOCATION WEST DOVER, VERMONT

CLIENT CALLAHAN OIL

CONTRACTOR ARMOR SHIELD

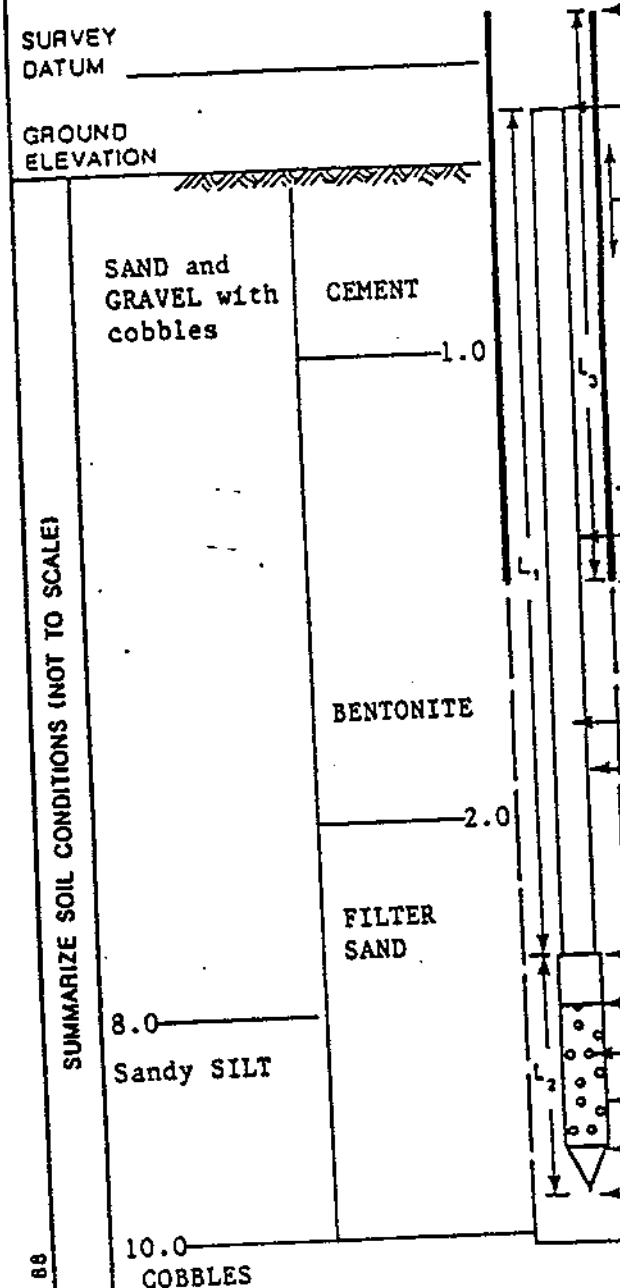
DRILLER BINO BARROZO

BORING NO. MS2

LOCATION SEE SKETCH

INSTALLATION DATE 17 JULY 90

H&A REP M. BURNO



~~ELEVATION~~ OR STICKUP ABOVE/~~BELOW~~ GROUND SURFACE OF ~~CASING OR~~ ROADWAY BOX	FLUSH
~~ELEVATION~~ OR STICKUP ~~ABOVE~~/BELOW GROUND SURFACE OF RISER PIPE	1.5 in.
THICKNESS OF SURFACE SEAL	1.0 ft.
TYPE OF SURFACE SEAL [INDICATE ALL SEALS SHOWING DEPTH, THICKNESS AND TYPE]	CEMENT/ BENTONITE
TYPE OF CASING	ROADWAY BOX
INSIDE DIAMETER OF CASING	12 in.
~~ELEVATION~~/DEPTH OF BOTTOM OF CASING	1.1 ft.
INSIDE DIAMETER OF RISER PIPE	2.0 in.
TYPE OF BACKFILL AROUND RISER	CEMENT/BENTONITE
DIAMETER OF BOREHOLE	8.25 in.
~~ELEVATION~~/DEPTH OF BOTTOM OF RISER	3 ft.
TYPE OF POINT OR MANUFACTURER	SLOTTED PVC
SCREEN GAUGE OR SIZE OF OPENINGS	0.020 in.
DIAMETER OF WELLPOINT	2.0 in.
TYPE OF BACKFILL AROUND POINT	FILTER SAND
~~ELEVATION~~/DEPTH OF BOTTOM OF POINT	10.5 ft.
~~ELEVATION~~/DEPTH OF BOTTOM OF BOREHOLE	10.5 ft.

[FIGURES REFER TO: EL. ____ DEPTH X]

1.1 ft.	3.0 ft.	7.5 ft.	10.5 ft.
LENGTH OF CASING (L_3)	LENGTH OF RISER PIPE (L_1)	LENGTH OF POINT (L_2)	PAY LENGTH

Form 59 Rev. Feb. 88

Haley & Aldrich, Inc.

GROUNDWATER OBSERVATION WELL REPORT

WELL NO. MS1-OW
FILE NO. 90233-56

PROJECT GRAMPY'S MOUNT SNOW TEXACO
LOCATION WEST DOVER, VERMONT
CLIENT CALLAHAN OIL
CONTRACTOR ARMOR SHIELD
DRILLER BINO BARROZO

BORING NO. MS2
LOCATION SEE SKETCH
INSTALLATION DATE 17 JULY 90
H&A REP M. BURNO

SURVEY DATUM
GROUND ELEVATION

SUMMARIZE SOIL CONDITIONS (NOT TO SCALE)

ASPHALT 0.2
CEMENT 1.0
SAND and GRAVEL
BENTONITE 2.0
FILTER SAND
6.5 Sandy SILT
COBBLES

~~ELEVATION~~ OR STICKUP ABOVE/~~BELOW~~ GROUND SURFACE OF ~~CASING OR~~ ROADWAY BOX	FLUSH
~~ELEVATION~~ OR STICKUP ~~ABOVE~~/BELOW GROUND SURFACE OF RISER PIPE	3 in.
THICKNESS OF SURFACE SEAL	1.0 ft.
TYPE OF SURFACE SEAL [INDICATE ALL SEALS SHOWING DEPTH, THICKNESS AND TYPE]	CEMENT/ BENTONITE
TYPE OF CASING	ROADWAY BOX
INSIDE DIAMETER OF CASING	12 in.
~~ELEVATION~~/DEPTH OF BOTTOM OF CASING	1.1 ft.
INSIDE DIAMETER OF RISER PIPE	2.0 in.
TYPE OF BACKFILL AROUND RISER	CEMENT/BENTONITE
DIAMETER OF BOREHOLE	8.25 in.
~~ELEVATION~~/DEPTH OF BOTTOM OF RISER	2.5 ft.
TYPE OF POINT OR MANUFACTURER	SLOTTED PVC
SCREEN GAUGE OR SIZE OF OPENINGS	0.020 in.
DIAMETER OF WELLPOINT	2.0 in.
TYPE OF BACKFILL AROUND POINT	FILTER SAND
~~ELEVATION~~/DEPTH OF BOTTOM OF POINT	10.5 ft.
~~ELEVATION~~/DEPTH OF BOTTOM OF BOREHOLE	11.0 ft.

[FIGURES REFER TO: EL. _____ DEPTH X]

1.1 ft.	2.5 ft.	8.0 ft.	10.5 ft.
LENGTH OF CASING (L_3)	LENGTH OF RISER PIPE (L_1)	LENGTH OF POINT (L_2)	PAY LENGTH

Form 59 Rev. Feb. 88

CORPORATE ENVIRONMENTAL ADVISORS, INC.

141 Ballard Street • Worcester, Massachusetts 01607 • (508) 754-1080

OBSERVATION WELL GAUGE REPORT

SITE Christy's Market DATE 9/23/96

LOCATION W. Dover, Vt. PROJECT NO. 3016-96-2 ref. # 1896

INSPECTOR S. Hoppe INSTRUMENT interface probe

		A	B	C	D	E	F	
WELL	WELL DEPTH	ROAD-BOX ELEV.	DEPTH TO PRODUCT	DEPTH TO WATER	PRODUCT THICK (C-B)	PRODUCT ELEV. (A-B)	WATER ELEV. (A-C)	REMARKS
CEA-2		96.12		4.15			91.97	
CEA-3		96.72		3.67			93.05	
MS-3		95.22		4.00			91.22	
CEA-1		94.73		3.63			91.10	

CONVERSION: INCHES TO FRACTIONAL FEET

1/2	.04	2 1/2	.21	4 1/2	.37	6 1/2	.54	8 1/2	.70	10 1/2	.87
1	.08	3	.25	5	.42	7	.58	9	.75	11	.91
1 1/2	.12	3 1/2	.29	5 1/2	.46	7 1/2	.62	9 1/2	.79	11 1/2	.95
2	.16	4	.33	6	.50	8	.66	10	.83		

MONITORING WELLS
RECOVERY WELLS

DRILEX ENVIRONMENTAL

ANGLE AND LOW CLEARANCE
GEOPROBE® SERVICES

		Construction	Feet BGS	Material Description	Symbol
Site:	West Dover, VT	Screen:	10 to 3	2" Sch 40 0.010 Slot PVC Screen	
Client:	Christy's Market	Riser:	3 to 0	2" Sch 40 PVC riser	
Date:	29-Oct-96	Sandpack:	10 to 2.5	# 2 Silica Sand	
Location:	CEA-5	Seal:	2.5 to 2	Sodium Bentonite	
Driller:	Jody St. George	Backfill:	2 to 0	Concrete	
Inspector:	W. Scott Hoppe				

Depth (feet BGS)	Sample	Blow Counts per 6"	Recovery (inches)	Boring Detail	Soil Description	OVM (ppm)
4-6	S-1	10-15-30-33	N/A		Dark brown, medium dense, moist to wet SAND, some gravel	< 1
6-8	S-2	21-23-15-14	N/A			< 1
					Refusal @ 10' BGS	

		Portion	Percent	
Depth to Water:	5'	And	35 to 50	Hammer Weight: 140 Pounds
Drilling Method:	HSA	Some	20 to 35	Sampler Size: 2-Inch O.D. Split Spoon
Drill Rig Type:	CME-75	Little	10 to 20	Hammer Fall: 30-Inches
		Trace	0 to 10	Note:
Sheet Number:	of			

DRILEX ENVIRONMENTAL, INC.
127 HARTWELL STREET, WEST BOYLSTON, MA 01583
TEL 508-835-6724 • FAX 508-835-6734

MONITORING WELLS
RECOVERY WELLS

DRILEX ENVIRONMENTAL

ANGLE AND LOW CLEARANCE
GEOPROBE® SERVICES

Site:	West Dover, VT	Construction	Feet BGS
Client:	Christy's Market	Screen:	to
Date:	29-Oct-96	Riser:	to
Location:	CEA-6	Sandpack:	to
Driller:	Jody St. George	Seal:	to
Inspector:	W. Scott Hoppe	Backfill:	to

Depth (feet BGS)	Sample	Blow Counts per 6"	Recovery (inches)	Boring Detail	Soil Description	OVM (ppm)
4-6	S-1	21-26-19-30	N/A		Light brown, moist, medium dense SAND	476
					No well construction data available	
					Refusal @ 6.5'	

Material Description	Symbol

Depth to Water:	5'	Portion	Percent	Hammer Weight: 140 Pounds
Drilling Method:	HSA	And	35 to 50	Sampler Size: 2-Inch O.D. Split Spoon
Drill Rig Type:	CME-75	Some	20 to 35	Hammer Fall: 30-Inches
		Little	10 to 20	Note:
Sheet Number:	of	Trace	0 to 10	

DRILEX ENVIRONMENTAL, INC.
127 HARTWELL STREET, WEST BOYLSTON, MA 01583
TEL 508-835-6724 • FAX 508-835-6734

ATTACHMENT 2

Laboratory Analytical Reports

SPECTRUM ANALYTICAL, INC.

Massachusetts Certification M-MA 138
Connecticut Approval # PH 0777
Rhode Island # 98 & Maine # n/a
New Hampshire ID#253893
New York ID#11393
Florida HRS87448

November 11, 1996

CEA, Inc.
127 Hartwell Street
West Boylston, MA 01583

Attn: Scott Hoppe

Client Project No.: **3016-962** Location: **Christy's/Mt. Snow-W. Dover,VT**

Lab ID No.	Client ID	Analysis Requested
AA63550	CEA-3	C93-EPA 602 C103-TPH by GC (water)
AA63551	CEA-5	C93-EPA 602 C103-TPH by GC (water)
AA63552	CEA-1	C93-EPA 602 C103-TPH by GC (water)
AA63553	MS-3	C93-EPA 602 C103-TPH by GC (water)
AA63554	CEA-6	C93-EPA 602 C103-TPH by GC (water)

NOV 20 1996

Authorized by:

Hanibal Tayeh
President/Laboratory Director

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **CEA-1**
Lab ID No: **AA63552**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No.: **3016-962**

Matrix: Water
Collected: 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration
Container : 1 Amber Glass Liter
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons (GC)	1.0		11/04/96	11/06/96	ATP
Fingerprint based quantification:					
Gasoline	1.0	0.2	11/04/96	11/06/96	ATP
Fuel Oil #2	Not detected	0.4	11/04/96	11/06/96	ATP
Fuel Oil #4	Not detected	0.7	11/04/96	11/06/96	ATP
Fuel Oil #6	Not detected	0.7	11/04/96	11/06/96	ATP
Motor Oil	Not detected	0.7	11/04/96	11/06/96	ATP
Ligroin	Not detected	0.4	11/04/96	11/06/96	ATP
Aviation Fuel	Not detected	0.4	11/04/96	11/06/96	ATP
Other Oil	Not detected	0.7	11/04/96	11/06/96	ATP
Unidentified	Not detected		11/04/96	11/06/96	ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.
Fuel Oil #4 - Includes #4 Fuel Oil.
Fuel Oil #6 - includes #6 oil and bunker "C" oil.
Motor Oil - includes virgin and waste automobile.
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.
Aviation Fuels - includes Kerosene, Jet A and JP-4.
Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **CEA-3**
Lab ID No: **AA63550**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No.: **3016-962**

Matrix: Water
Collected: 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration
Container : 1 Amber Glass Liter
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons (GC)	7.3		11/04/96	11/06/96	ATP
Fingerprint based quantification:					
Gasoline	Not detected	0.2	11/04/96	11/06/96	ATP
Fuel Oil #2	Not detected	0.4	11/04/96	11/06/96	ATP
Fuel Oil #4	Not detected	0.7	11/04/96	11/06/96	ATP
Fuel Oil #6	7.3	0.7	11/04/96	11/06/96	ATP
Motor Oil	Not detected	0.7	11/04/96	11/06/96	ATP
Ligroin	Not detected	0.4	11/04/96	11/06/96	ATP
Aviation Fuel	Not detected	0.4	11/04/96	11/06/96	ATP
Other Oil	Not detected	0.7	11/04/96	11/06/96	ATP
Unidentified	Not detected		11/04/96	11/06/96	ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.
Fuel Oil #4 - Includes #4 Fuel Oil.
Fuel Oil #6 - includes #6 oil and bunker "C" oil.
Motor Oil - includes virgin and waste automobile.
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.
Aviation Fuels - includes Kerosene, Jet A and JP-4.
Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **CEA-5**
Lab ID No: **AA63551**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No.: **3016-962**

Matrix: Water
Collected: 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration
Container : 1 Amber Glass Liter
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons (GC)	0.3		11/04/96	11/05/96	ATP
Fingerprint based quantification:					
Gasoline	0.3	0.2	11/04/96	11/05/96	ATP
Fuel Oil #2	Not detected	0.4	11/04/96	11/05/96	ATP
Fuel Oil #4	Not detected	0.7	11/04/96	11/05/96	ATP
Fuel Oil #6	Not detected	0.7	11/04/96	11/05/96	ATP
Motor Oil	Not detected	0.7	11/04/96	11/05/96	ATP
Ligroin	Not detected	0.4	11/04/96	11/05/96	ATP
Aviation Fuel	Not detected	0.4	11/04/96	11/05/96	ATP
Other Oil	Not detected	0.7	11/04/96	11/05/96	ATP
Unidentified	Not detected		11/04/96	11/05/96	ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.
Fuel Oil #4 - Includes #4 Fuel Oil.
Fuel Oil #6 - includes #6 oil and bunker "C" oil.
Motor Oil - includes virgin and waste automobile.
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.
Aviation Fuels - includes Kerosene, Jet A and JP-4.
Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **CEA-6**
Lab ID No: **AA63554**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No.: **3016-962**

Matrix: Water
Collected: 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration
Container : 1 Amber Glass Liter
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons (GC)	20		11/04/96	11/06/96	ATP
Fingerprint based quantification:					
Gasoline	20	0.2	11/04/96	11/06/96	ATP
Fuel Oil #2	Not detected	0.4	11/04/96	11/06/96	ATP
Fuel Oil #4	Not detected	0.7	11/04/96	11/06/96	ATP
Fuel Oil #6	Not detected	0.7	11/04/96	11/06/96	ATP
Motor Oil	Not detected	0.7	11/04/96	11/06/96	ATP
Ligroin	Not detected	0.4	11/04/96	11/06/96	ATP
Aviation Fuel	Not detected	0.4	11/04/96	11/06/96	ATP
Other Oil	Not detected	0.7	11/04/96	11/06/96	ATP
Unidentified	Not detected		11/04/96	11/06/96	ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.
Fuel Oil #4 - Includes #4 Fuel Oil.
Fuel Oil #6 - includes #6 oil and bunker "C" oil.
Motor Oil - includes virgin and waste automobile.
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.
Aviation Fuels - includes Kerosene, Jet A and JP-4.
Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Client ID: **MS-3**
Lab ID No: **AA63553**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No.: **3016-962**

Matrix: Water
Collected: 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration
Container : 1 Amber Glass Liter
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Total Hydrocarbons by GC

Modified EPA Method 8100

Parameter	Result (mg/L)	MDL	Extracted	Analyzed	Analyst
Total Hydrocarbons (GC)	0.7		11/04/96	11/06/96	ATP
Fingerprint based quantification:					
Gasoline	0.7	0.2	11/04/96	11/06/96	ATP
Fuel Oil #2	Not detected	0.4	11/04/96	11/06/96	ATP
Fuel Oil #4	Not detected	0.7	11/04/96	11/06/96	ATP
Fuel Oil #6	Not detected	0.7	11/04/96	11/06/96	ATP
Motor Oil	Not detected	0.7	11/04/96	11/06/96	ATP
Ligroin	Not detected	0.4	11/04/96	11/06/96	ATP
Aviation Fuel	Not detected	0.4	11/04/96	11/06/96	ATP
Other Oil	Not detected	0.7	11/04/96	11/06/96	ATP
Unidentified	Not detected		11/04/96	11/06/96	ATP

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from petroleum products. Possible match categories are as follows;

Gasoline - includes regular, unleaded, premium, etc.
Fuel Oil #2 - includes home heating oil, #2 fuel oil and diesel.
Fuel Oil #4 - Includes #4 Fuel Oil.
Fuel Oil #6 - includes #6 oil and bunker "C" oil.
Motor Oil - includes virgin and waste automobile.
Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha.
Aviation Fuels - includes Kerosene, Jet A and JP-4.
Other Oil - includes lubricating and cutting oil and silicon oil.

Factors such as microbial degradation, weathering and solubility generally prevent specific identification within a petroleum category. A finding of "unidentified" means that the sample fingerprint was characteristic of a petroleum product, but could not be matched to a fingerprint in the library.

After fingerprint identification, the amount present in the sample is quantified using a calibration curve prepared from a petroleum product of the same category as the identified petroleum. Unidentified petroleum is quantified using a petroleum calibration that approximates the distribution of compounds in the sample. A * in the results column indicates the petroleum calibration used to quantify unidentified samples.

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Sample ID: **CEA-1**
Lab ID No: **AA63552**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No: **3016-962**

Matrix: Water
Sampled on 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration, HCl
Container: 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Aromatics

EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	43	10	11/11/96	NB
Toluene	7.9	10	11/11/96	NB
Ethylbenzene	33	10	11/11/96	NB
m,p-Xylenes	Not detected	10	11/11/96	NB
o-Xylene	9.4	10	11/11/96	NB
Chlorobenzene	Not detected	5	11/11/96	NB
1,2-Dichlorobenzene	Not detected	5	11/11/96	NB
1,3-Dichlorobenzene	Not detected	5	11/11/96	NB
1,4-Dichlorobenzene	Not detected	5	11/11/96	NB
Methyl-t-butyl-ether	600	10	11/11/96	NB
TFT Surrogate Recovery (%)	96		11/11/96	NB

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Sample ID: **CEA-3**
Lab ID No: **AA63550**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No: **3016-962**

Matrix: Water
Sampled on 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration, HCl
Container: 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Aromatics

EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	Not detected	2.5	11/07/96	NB
Toluene	Not detected	2.5	11/07/96	NB
Ethylbenzene	Not detected	2.5	11/07/96	NB
m,p-Xylenes	Not detected	5	11/07/96	NB
o-Xylene	Not detected	2.5	11/07/96	NB
Chlorobenzene	Not detected	2.5	11/07/96	NB
1,2-Dichlorobenzene	Not detected	2.5	11/07/96	NB
1,3-Dichlorobenzene	Not detected	2.5	11/07/96	NB
1,4-Dichlorobenzene	Not detected	2.5	11/07/96	NB
Methyl-t-butyl-ether	Not detected	2.5	11/07/96	NB
TFT Surrogate Recovery (%)	103		11/07/96	NB

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Sample ID: **CEA-5**
Lab ID No: **AA63551**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No: **3016-962**

Matrix: Water
Sampled on 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration, HCl
Container: 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Aromatics

EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	1.5	1	11/11/96	NB
Toluene	Not detected	1	11/11/96	NB
Ethylbenzene	Not detected	1	11/11/96	NB
m,p-Xylenes	Not detected	2	11/11/96	NB
o-Xylene	Not detected	1	11/11/96	NB
Chlorobenzene	Not detected	1	11/11/96	NB
1,2-Dichlorobenzene	Not detected	1	11/11/96	NB
1,3-Dichlorobenzene	Not detected	1	11/11/96	NB
1,4-Dichlorobenzene	Not detected	1	11/11/96	NB
Methyl-t-butyl-ether	21	1	11/11/96	NB
TFT Surrogate Recovery (%)	100		11/11/96	NB

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Sample ID: **CEA-6**
Lab ID No: **AA63554**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No: **3016-962**

Matrix: Water
Sampled on 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration, HCl
Container: 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Aromatics

EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	1,300	20	11/11/96	NB
Toluene	2,400	20	11/11/96	NB
Ethylbenzene	230	20	11/11/96	NB
m,p-Xylenes	2,000	40	11/11/96	NB
o-Xylene	1,400	20	11/11/96	NB
Chlorobenzene	Not detected	10	11/11/96	NB
1,2-Dichlorobenzene	Not detected	10	11/11/96	NB
1,3-Dichlorobenzene	Not detected	10	11/11/96	NB
1,4-Dichlorobenzene	Not detected	10	11/11/96	NB
Methyl-t-butyl-ether	3,600	20	11/11/96	NB
TFT Surrogate Recovery (%)	90		11/11/96	NB

SPECTRUM ANALYTICAL, INC.

Laboratory Report

Sample ID: **MS-3**
Lab ID No: **AA63553**

Location: **Christy's/Mt. Snow-W. Dover,VT**
Client Job No: **3016-962**

Matrix: Water
Sampled on 10/30/96 by CEA
Received on 10/31/96 by MD
QC and Data Review by DDR

Preservative: Refrigeration, HCl
Container: 2 VOA Vials
Condition of Sample as Received: Satisfactory
Delivered by: Courier

Volatile Aromatics

EPA Method 602/8020

Parameter	Result (ug/L)	MDL	Analyzed	Analyst
Benzene	21	2	11/11/96	NB
Toluene	4.2	2	11/11/96	NB
Ethylbenzene	18	2	11/11/96	NB
m,p-Xylenes	Not detected	4	11/11/96	NB
o-Xylene	4.4	2	11/11/96	NB
Chlorobenzene	Not detected	1	11/11/96	NB
1,2-Dichlorobenzene	Not detected	1	11/11/96	NB
1,3-Dichlorobenzene	Not detected	1	11/11/96	NB
1,4-Dichlorobenzene	Not detected	1	11/11/96	NB
Methyl-t-butyl-ether	370	2	11/11/96	NB
TFT Surrogate Recovery (%)	97		11/11/96	NB

Spectrum Analytical, Inc.
Laboratory Report Supplement

References

Methods for the Determination of Organic Compounds in Drinking Water. EPA-600/4-88/039. EMSL 1988.

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. EMSL 1983.

Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. EPA 600/4-82-057. EMSL 1982.

Test Methods for Evaluating Solid Waste. Physical/Chemical Methods. EPA SW-846. 1986.

Standard Methods for the Examination of Water and Wastes. APHA-AWWA-WPCF. 16th Edition. 1985.

Standard Methods for Comparison of Waterborne Petroleum Oils by Gas Chromatography. ASTM D 3328. 1982.

Oil Spill Identification System. U.S. Coast Guard CG-D-52-77. 1977.

Handbook for Analytical Quality Control in Water and Wastewater Laboratories. EPA 600/4-79-019. EMSL 1979.

Choosing Cost-Effective QA/QC (Quality Assurance/Quality Control) Programs for Chemical Analyses. EPA 600/4-85/056. EMSL 1985.

Report Notations

Not Detected, Not Det, ND or nd	=	*The compound was not detected at a concentration equal to or above the established method detection limit.*
NC	=	*Not Calculated*
VOA	=	*Volatile Organic Analysis*
BFB	=	*4-Bromofluorobenzene (an EPA 624 Surrogate)*
p-DFB	=	*1,4-Difluorobenzene (an EPA 624 Surrogate)*
CLB-d5	=	*Chlorobenzene-d5 (an EPA 624 Surrogate)*
BCP	=	*2-Bromo-1-chloropropane (an EPA 601 Surrogate)*
TFT	=	*a,a,a-Trifluorotoluene (an EPA 602 Surrogate)*
Decachlorobiphenyl	=	*(An EPA 608/8080 Surrogate)*

Definitions

Surrogate Recovery = The recovery (expressed as a percent) of a non method analyte (see surrogates listed above) added to the sample for the purpose of monitoring system performance.

Matrix Spike Recovery = The recovery (expressed as a percent) of method analytes added to the sample for the purpose of determining any effect of sample composition on analyte recovery.

Laboratory Replicate = Two sample aliquots taken in the analytical laboratory and analyzed separately with identical procedures. Analyses of laboratory duplicates give a measure of the precision associated with laboratory procedures, but not with sample collection, preservation, or storage procedures.

Field Duplicate = Two separate samples collected at the same time and place under identical circumstances and treated exactly the same throughout field and laboratory procedures. Analysis of Field duplicates give a measure of the precision associated with sample collection, preservation and storage, as well as with laboratory procedures.

Relative Percent Difference (% RPD) = The precision measurement obtained on duplicate/replicate analyses. %RPD is calculated as:

$$\%RPD = \frac{|value1 - value2|}{ave.\ value} * 100\%$$

CHAIN OF CUSTODY RECORD

SPECTRUM ANALYTICAL

Page _____ of _____

PROJECT NO.: 3016-96-2	REPORT TO: Scott Hoppe
SITE NAME: Christy's Mt. Snow	CED
LOCATION: West Dover STATE VT	ADDRESS:
REFERENCE QUOTE NUMBER (RQN):	CITY STATE ZIP
PURCHASE ORDER NO.:	INVOICE TO: Chris Gorski
PROJECT Mgr: Scott Hoppe	CED
SAMPLER(s): Scott Hoppe	CITY STATE ZIP

SAMPLE TYPE & MATRIX CODES:

1 = 4°C 2 = HCl 3 = H_2SO_4 4 = HNO_3 5 = OTHER _____

C = COMPOSITE G = GRAB

1 = AQUEOUS 3 = SLUDGE 5 = OTHER _____
2 = SOIL 4 = SEDIMENT

LAB USE ONLY	SAMPLE I.D.	DATE	TIME	MATRIX	SAMPLE TYPE	PRESERVATIVE	CONTAINERS: # 40 ml VOA VIALS	CONTAINERS: # OF AMBER GLASS LITERS	CONTAINERS: # OF PLASTIC LITERS	CONTAINERS: # OF GLASS SOIL JARS	CONTAINERS:	VOC's: 1-601/8010 2-602/8020	VOC's: 1-502/8021 2-524	VOC's: 1-624/8240 2-8260	VOC's: 1-MTBE 2-KETONES	SVOC's: 1-8270 2-BN 3-PAHS	SVOC's: 1-PCBS 2-PEST (608/8080)	TPH: 1-GC(8100M) 2-GC(8015M)	TPH: 1-VPH 2-EPH 3-ID	TPH: 1-IR(418.1) 2-OIL/GREASE	METALS (1 - Soluble 2 - Total 3 - TCLP): PP13	METALS: RCRA8	METALS: As, Cd, Cr, Hg, Pb	OTHER: 1-PH 2-FLASH 3-REACT	OTHER	OTHER
A 63550	CEA-3	10-30-96	9:00	1		2	2	1				2						1								
AA 63551	CED-5	"	9:15	"		"	"	"				"						"								
A 63552	CED-1	"	9:30	"		"	"	"				"						"								
A 63553	~~CED~~ MS-3	"	9:45	"		"	"	"				"						"								
AA 63554	CED-6	"	10:10	"		"	"	"				"						"								
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RELINQUISHED BY:	RECEIVED BY:	DATE	TIME
Scott Hoppe	[illegible]	10-31-96	1:45
[illegible] 10-31-96 3:00P	Marian Dutar	10/31/96	15:00

SPECIAL INSTRUCTIONS: _____

☐ Fax results when available to (____) _____

SPECIAL HANDLING: *Please check*

- ☐ Return Sample after Analysis
- ☐ Dispose of Sample after 60 days
- ☑ Standard TAT - 7 to 10 Business days
- ☐ Special TAT - 24 hr - 48 hr - 72 hr - 5 b. days

• TAT begins when sample is received at test facility.
• TAT for samples rec'd after 3 pm will begin on the next business day.
• All TAT's are subject to laboratory approval and customer consent.

DATE RESULTS NEEDED: _____

11 Almgren Drive • Agawam, Massachusetts 01001 • 413-789-9018 • Fax 413-789-4076

UNDERGROUND STORAGE TANK PERMANENT CLOSURE FORM

AGENCY USE ONLY
Sched. closure date:
Facility Town:
Facility ID#:
DEC Official:
Evaluated by:

VERMONT AGENCY OF NATURAL RESOURCES
DEPT. OF ENVIRONMENTAL CONSERVATION
HAZARDOUS MATERIALS MANAGEMENT DIV.
103 SOUTH MAIN STREET, WEST BUILDING
WATERBURY, VERMONT 05671-0404
TELEPHONE: (802) 241-3888

Company conducting site assessment:
Person conducting site assessment:
Telephone number of company for person:
Date of UST closure:
Date of site assessment:

This Closure Form may only be used for the facility and date indicated in the upper left hand corner. Changes in the scheduled closure date should be phoned in at least 48 hours in advance. Both the yellow and white copies must be returned to the above address; the pink copy should be retained by the UST owner. A written report from an environmental consultant covering all aspects of closure and site assessment, complete with photographs and any other relevant data, must accompany this form. All procedures must be conducted by qualified personnel - including training required by 29 CFR 1910.120. Documentation of all methods and materials used must be adequate. All work must be performed in compliance with DEC policy "UST Closure and Site Assessment Requirements" as well as all applicable statutes, regulations, and additional policies. The DEC may reject inadequate closure forms and reports.

Section A. Facility Information:

Name of Facility: Christy's Market Number of Employees: ± 15
Street address of facility: Route 100, P.O. Box 969, West DOver, VT
Owner of UST(s) to be closed: Christy's Market
Name of Contact and telephone number if different from owner: Mr. Tom Wilburn
Mailing address of owner: 22 Christy's Drive, Brockton, MA 02401
Telephone number of owner: (508) 586-0474

Section B. UST Closure Information:(please check one)

Reason for initiating UST Closure: ___Suspected Leak ___Liability X Replacement ___Abandoned
Which portion of UST is being closed: ___Tanks X Piping ___Tanks & Piping

USTs undergoing permanent closure. Include condition and if leaks were found:

UST#	Product	Size (gallons)	Tank age	Tank condition	Piping age	Piping condition

Which tanks, if any, will be closed in-place (must have approval from DEC)
Disposal/destruction of removed UST(s):
Location Date__/__/__ Method Date__/__/__

Amount (gal.) and type of waste generated from USTs:
Tank cleaning company (must be treated in certified aqueous entity):
Certified hazardous waste hauler (tank contents are hazardous waste unless recovered and usable product):
Hazardous waste generator ID number:

USTs not closed. This portion must be filled in to include all USTs, regardless of size, and status, *whether "abandoned", "in use", "to be installed", or "not aware of any other tanks on-site". Remember: most new installations require permits and advance notice to this office.

UST#	Product	Size (gallons)	Tank age	*Tank Status	Piping Age	*Piping Status
1	Diesel Fuel	8,000	14 years	in use	14 years	replaced
2	S. Unleaded	8,000	14 years	in use	14 years	replaced
3	Mid-grade unleaded	8,000	14 years	in use	14 years	replaced
4	Regular unleaded	8,000	14 years	in use	14 years	replaced
5	Kerosene	4,000	14 years	in use	14 years	replaced

Section C. Initial site characterization:

Work in this section must be completed by a professional environmental consultant or hydrogeologist with experience in environmental sampling for the presence of hazardous materials. A full report from the consultant must accompany this form.

Excavation size (ft²): 1,600 Excavation depth (ft): up to 8 ft Soil type: Sand & Gravelly Sand Bedrock depth (ft): >8 ft
PID Information: Make: Thermo Electron Model: 580B

PID Calibration information: Date 9/16/96 Time 16'30 Type of Gas Isobutylene
Contamination detected with PID (ppm): Peak 341ppm Depth of peak (ft) 5 ft Avg 138
Soil samples collected for laboratory analysis? Yes _____ # of samples _____ No ____
(show locations and depth of all readings and samples on diagram).

Have soils been polyencapsulated on site? Yes X list amount (cu. yds.): 30 No ____
Have any soils been transported off site? Yes ____ list amount (cu. yds.): _____ No X
Location transported to: _____
Name of DEC official granting approval to transport soils: _____ Date: / /
Amount of soils backfilled. (cu. yds.): _____, Avg. PID ____
Have limits of contamination been defined? Yes ____ No X
Are you aware of any other contaminants which may be present? Yes ____ No X
Comments: _____

Free phase product encountered? Yes ____ thickness _____ No X
Groundwater encountered? Yes X depth(ft) 6 No ____

Were there existing monitoring wells on site? Yes X (# samples taken 0) No ____
Have new monitoring wells been installed? Yes ____ (# samples taken ____) No X
Samples collected from monitoring wells for lab analysis? Yes ____ No X
(include well locations, headspace readings, and laboratory results if applicable in a seperate report and on the site diagram)
Is there a water supply well or spring on site? Yes X (check type: shallow ____ rock ____ spring ____) No ____
How many public water supply wells are located within a 0.5 mile radius? No ____ min. distance (ft): _____
How many private water supply wells are located within a 0.5 mile radius? Yes ____ min. distance (ft): 400
What receptors have been impacted? X soil ____ indoor air X groundwater ____ surface water ____ water supply

Section D. Statements of UST closure compliance: (must have both signatures or site assessment not complete)

As the party responsible for compliance with the Vermont UST Regulations and related statutes at this facility, I hereby certify that all of the information provided on this form is true and correct to the best of my knowledge.

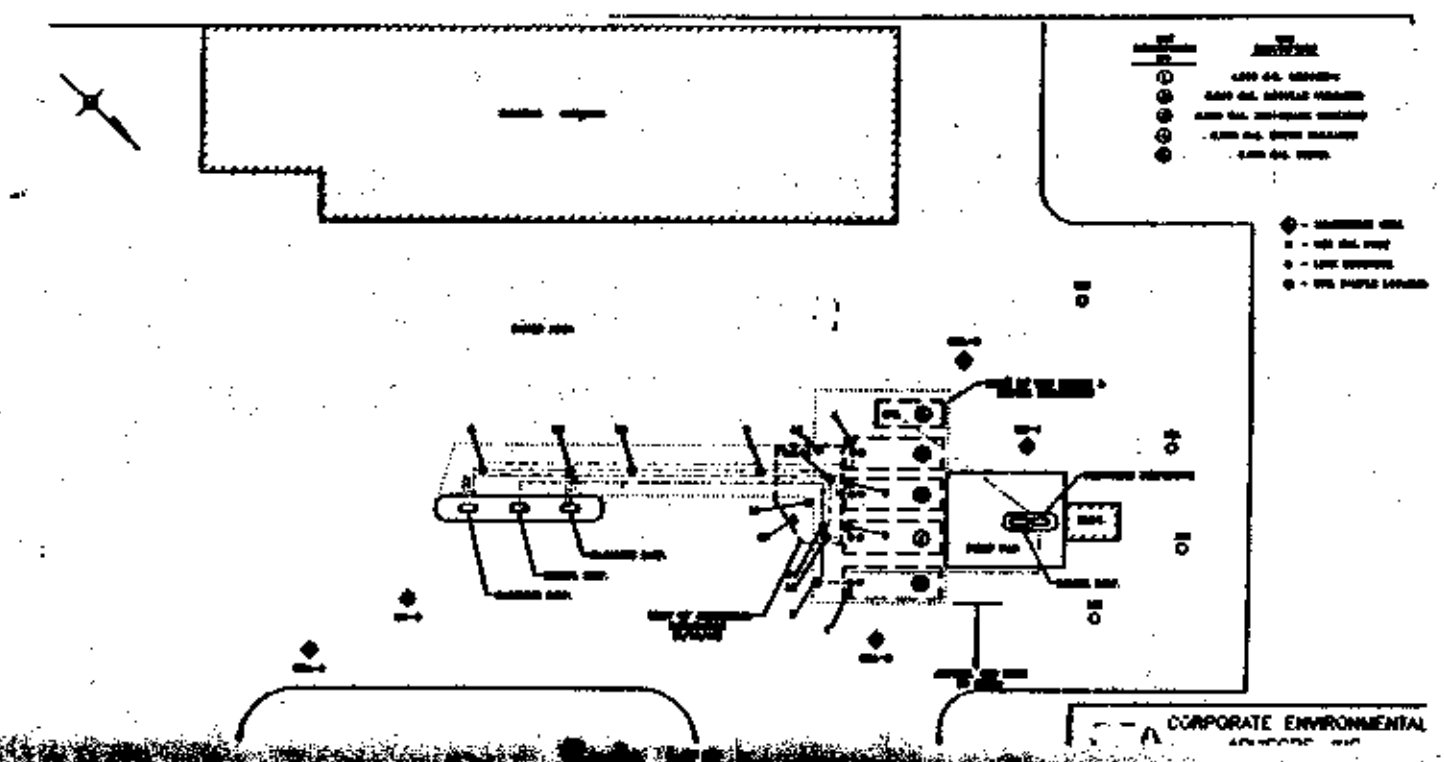
_____ Date: 9-23-96
Signature of UST owner or owner's authorized representative

As the environmental consultant on site, I hereby certify that the site assessment requirements were performed in accordance with DEC policy and regulations, and that information which I have provided on this form is true and correct to the best of my knowledge.

_____ Date: 9-23-96
Signature of Environmental Consultant

SITE DIAGRAM

Show location of all tanks and distance to permanent structures, sample points, areas of contamination, potential receptors and any pertinent site information. Indicate North arrow and major street names or route number.



Return form along with complete narrative report and photographs to the Department of Environmental Conservation, Underground Storage Tank Program within 72 hours of closure.

ATTACHMENT 4

List of Abutting Property Owners

Initial Site Investigation Report
Christy's Market, West Dover, Vermont

Lot# RT069 3 acres commercial
Christy's Market, Inc.
22 Christy's Drive
Brockton, MA 02401

Lot# RT067 1 acre commercial
Barber E.G. Trust
P.O. Box 37
West Dover, VT 05356-0037

Lot# 075 8.27 acres commercial
Cullen 1985 Trust
P.O. Box 306
West Dover, VT 05356-0306

Lot# 071 2 acres commercial
R. & E. Teodorini (Trustees)
P.O. Box 111
West Dover, VT 05356-0111

Lot # 068 2 acres R1
Fernot Construction
c/o J.A. Fernot
HCR #63 Box 2
West Dover, VT 05356

Lot# 066 1 acre commercial
Brook House
P.O. Box 38
West Dover, VT 05356-0038

Lot #SA
Swiss Alps Condominiums (various owners):

Nikituk, S & C
296 Neck Rd.
Madison, CT 06443

Schletter, D & J
17 Marycrest Rd.
West Nyack, NY 10994

Loschiavo, J & S
35 Driftway Rd.
Danbury, CT 06811

Petrizzi, M & R
28 Royal Road
Rockville Centre, NY 11570

Initial Site Investigation Report
Christy's Market, West Dover, Vermont

Knapp, J & C
249 Isinglass Rd.
Shelton, CT 06484

Bastek, W & M
430 Park Ridge Lane (Apt. M)
Winston Salem, NC 27104

Cohen, R & L
55 Knolls Drive
Manhasset Hills, NY 11040

Zacks, L & C
310 West Lake Blvd.
Mahopac, NY 10541

ATTACHMENT 5

Limitations

LIMITATIONS

1. The sole purpose of the investigation and of this report is to assess the physical characteristics of the Site with respect to the presence or absence in the environment of oil and/or hazardous materials and substances as defined in the applicable state and federal environmental laws and regulations, and to gather information regarding current and past environmental conditions at the Site.

2. Corporate Environmental Advisors, Inc. (CEA) derived the data in this report primarily from visual inspections, examination of records in the public domain, interviews with individuals with information about the Site, and a limited number of subsurface explorations made on the dates indicated. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the Site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report in accordance with local, state, and Federal regulations.

3. In preparing this report, CEA has relied upon, and presumed accurate, certain information (or the absence thereof) about the Site and adjacent properties provided by governmental officials and agencies, the Client, and others identified herein. Except as otherwise stated in the report, CEA has not attempted to verify the accuracy or completeness of any such information which is outside of the approved scope of this project.

4. The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Work, including the extent of subsurface exploration and other tests. The Scope of Work was defined by the requests of the Client, the time and budgetary constraints imposed the by Client, and the availability of access to the Site.

5. Because of the limitations stated above, the findings, observations, and conclusions expressed by CEA in this report are not, and should not be considered, an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation. No warranty or guarantee, whether express or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Further, such data, findings, observations, and conclusions are based solely upon site conditions in existence at the time of investigation.

6. This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the Agreement and the provisions thereof.

7. This report was prepared in accordance with generally accepted environmental engineering practice. No other warranty, expressed or implied, is made.